

CLAIMS

What is claimed is:

1. An assembly for mounting a semiconductor device to a carrier substrate, comprising:
an alignment device with at least one receptacle formed therein; and
at least one semiconductor device including a mounting element with a receptacle configured to receive at least a portion of said at least one semiconductor device in nonparallel orientation relative to a carrier substrate.
2. The assembly of claim 1, wherein said at least one semiconductor device includes at least one contact pad adjacent a single edge thereof.
3. The assembly of claim 2, wherein said alignment device comprises at least one contact located so as to be aligned with said at least one contact pad of said at least one semiconductor device upon interconnection thereof with said alignment device.
4. The assembly of claim 3, wherein, upon interconnection of said at least one semiconductor device with said alignment device, said at least one contact resiliently abuts said at least one contact pad to establish an electrically conductive connection between said at least one contact and said at least one contact pad.
5. The assembly of claim 2, wherein said at least one semiconductor device comprises a semiconductor die and said at least one contact pad comprises a bond pad of said semiconductor die.
6. The assembly of claim 1, wherein said alignment device is configured to engage or to be engaged by said mounting element.

7. The assembly of claim 6, wherein said alignment device includes an actuator for adjusting said alignment device between an engagement state and a nonengagement state.

8. The assembly of claim 1, wherein said alignment device includes a plurality of interconnection receptacles formed therein.

9. The assembly of claim 1, wherein said at least one semiconductor device includes a retainer having at least one receptacle configured to receive and secure an edge of said at least one semiconductor device.

10. A user-upgradable semiconductor device assembly, comprising:
at least one semiconductor device including a mounting element; and
an alignment device including at least one receptacle configured to receive at least an edge of
said at least one semiconductor device with said at least one semiconductor device being
oriented nonparallel to a carrier substrate.

11. The user-upgradable semiconductor device assembly of claim 10, wherein said alignment device is configured to engage or to be engaged by said mounting element.

12. The user-upgradable semiconductor device assembly of claim 10, wherein said alignment device includes an actuator positionable between a mounting element-engagement state and a mounting element-nonengagement state.

13. The user-upgradable semiconductor device assembly of claim 12, wherein said mounting element-nonengagement state facilitates removal of said at least one semiconductor device from said at least one receptacle.

14. A semiconductor device package, comprising:
at least one semiconductor device including a plurality of contact pads located proximate a single edge of said at least one semiconductor device;
a retainer including at least one receptacle configured to receive another edge of said at least one semiconductor device; and
at least one mounting element associated with said retainer and configured to secure said at least one semiconductor device to a carrier.

15. The semiconductor device package of claim 14, further comprising an alignment device configured to be mounted to the carrier substrate.

16. The semiconductor device package of claim 15, wherein said alignment device is configured to engage or to be engaged by said at least one mounting element.

17. The semiconductor device package of claim 15, wherein said alignment device includes an actuator positionable between a mounting element-engagement state and a mounting element-nonengagement state.

18. The semiconductor device package of claim 17, wherein said mounting element-nonengagement state facilitates removal of said at least one semiconductor device from said alignment device.

19. The semiconductor device package of claim 15, wherein said alignment device includes at least one receptacle configured to receive at least said single edge of said at least one semiconductor device.

20. The semiconductor device package of claim 19, wherein a plurality of contacts are positioned within said at least one receptacle so as to facilitate electrical connection with corresponding contact pads of said at least one semiconductor device.

21. The semiconductor device package of claim 14, wherein said at least one semiconductor device comprises a semiconductor die and each of said plurality of contact pads comprises a bond pad of said semiconductor die.

22. The semiconductor device package of claim 14, wherein at least one contact pad of said plurality of contact pads is disposed on said single edge.

23. The semiconductor device package of claim 15, wherein said alignment device includes a plurality of interconnection receptacles formed therein.

24. The semiconductor device package of claim 14, wherein said at least one semiconductor device is secured within said receptacle of said retainer with an adhesive material.